UNITED STATES PATENT AND TRADEMARK OFFICE

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10/549,532	09/15/2005	Uwe Horn	P17321-US1	3807

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EXAMINER
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ART UNIT	PAPER NUMBER
2446	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)	
Office Action Summary	10/549,532	HORN ET AL.	
	Examiner	Art Unit	
	NOEL BEHARRY	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 May 2010_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20 and 24-41_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20 and 24-41_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _15 September 2005_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   **Office Action Summary**   Part of Paper No./Mail Date 20100728

DETAILED ACTION

1.   This communication is in response to applicant's response filed under 37 C.F.R.

§1.111 in response to a non-final office action. Applicant's attention is drawn to a new

examiner of record; see new correspondence below. Claim 1 has been amended.

Claims 1-20 and 23-41 are subject to examination.

Claim Objections

2.   **Claims 20, and 24-41** are objected to as being directed to software per se.

Specifically, claim 20 recites "an analysis entity" comprising various units but it is

unclear if the analysis entity is software or hardware, therefore these claims are directed

to non-statutory subject matter.

Response to Arguments

3.   Applicant's arguments filed 05/14/2010 have been fully considered but they are

not persuasive for the following reasons:

4.   **<u>Applicant's Argument:</u>**

        The applicant argues in substance that "the Yano and Jain references, whether

considered individually or as a combination, fail to teach or suggest each and every

element of the presently pending independent claims."

5.   **Examiner's Response:**

The examiner respectfully disagrees. The applicant argues that "A distinguishable difference between the present invention and the Yano reference is that the receiver in Yano sends a report to the transmitter regarding the volume of data that has been received versus the volume of data that has been sent in a period of time. This is after the fact; the receiver is providing information to determine a satisfactory data rate for the transmission link," but the examiner submits that this concept is not relayed in the claims. The claims merely recite broad limitations about obtaining information about a transmission capability of a transmission link. No where in the claims does it require information at a particular time. The applicant further argues that the limitation of the "analysis entity" is not taught in the prior art and that "the Applicant describes the Analysis Entity throughout the Applicant's Specification including, e.g., Figures 5a, b, and c and the Description of those figures," but the examiner submits that "It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. Constant v. Advanced Micro-Devices/nc., 7 USPQ2d 1064." Therefore, the applicant is advised to include more detail about the limitation to differentiate it from the cited prior art of record. Accordingly, because the claims are currently broad and does not specifically define an "analysis entity," Yano teaches of the analysis entity in Fig. 1 (1-14) network buffer data volume calculator. Lastly, the applicant argues that Jain fails to disclose a receiving rate and a sending rate to determine a relation but the examiner disagrees. Page 298 section 3.2 An iterative algorithm to measure, clearly teaches of transmission rates and specifically the relation

of these rates to obtain information about the available bandwidth or transmission
capability.

6.   **Examiner's Note:**

The examiner strongly advises the applicant to amend the claims to include more
details about what the applicant has invented with support from the specification. The
applicant is encouraged to further define the analysis entity on how it performs its
analysis and to further include detail on "determining an appearance of the rate
modulation" since this is not clear in the claims. The examiner believes that by clearly
detailing aspects of the claims that it would overcome the cited prior art and advance
prosecution.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 1-16, 18, 20- 38, 41 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Yano et al. (US 6,701,372) hereafter Yano in view of Jain et al.
("End-to-End Available Bandwidth: Measurement Methodology, Dynamics, and
Relation with TCP Throughput") hereafter Jain.**

   Regarding claim 1, Yano disclose a method for obtaining information about a

transmission capability of a transmission link (TL), wherein a sending entity (SE) sends

data packets at a sending rate to the transmission link (TL) which transmits the data

packets according to its transmission capability to a receiving entity (RE) receiving the

data packets at a receiving rate **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)**, the

method comprising: modulating the sending rate with a rate modulation **(Yano: Col. 4,**

lines 46-63) and executing the following steps by an analysis entity (AE) **(Yano: Col. 3,**

line 2 - Col. 4, line 19; Fig. 1)

   - obtaining the sending rate **(Yano: Col. 3, lines 14-21; block labeled s202**

"transit data at designated rate" Fig. 2),

   - obtaining the receiving rate **("The receiver report generator 1-23 calculates**

the reception rate that must be included in the receiver report," Yano: Col. 3, lines

37-44; "reception rate" Fig 5),

   - comparing the obtained sending rate and the obtained receiving rate **(Yano:**

Col. 5, lines 13-25; Fig. 6 "a new transmission rate is determined with reference to

the current transmission rate" Yano: Col. 6, lines 45-46) and to determine an

appearance of the rate modulation of the sending rate in the obtained receiving rate

(Col. 6, lines 58-65; Fig. 6, Fig. 17), and

   - obtaining the information about the determined appearance of the rate

modulation **(Yano: Col. 6, lines 58-65; Fig. 6, Fig. 17)**.

Yano does not explicitly disclose comparing to determine a relation of the obtained sending rate and the obtained receiving rate and the information about transmissions capabilities based on the determined relation.

However **Jain** discloses comparing a receiving rate and sending rate to determine a relation **(Jain: page 297 upper left column)** and obtaining the information about the transmission capability based on the determined relation **(Avail-Bw detection and measurement. Jain: page 297 upper left column)**. **Jain** discloses iteratively changing transmission rates **(Jain: section 3.2, page 298)** in order to obtain information about a transmission capabilities **(Jain: section 1. Introduction, page 295)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention create the sending and receiving rate measurement and modulation method of **Yano** to include the use of comparing a receiving and a sending rate as taught by **Jain** in order to obtain information about transmission capabilities of a system.

Regarding claim 2, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses wherein the obtained information about the transmission capability **is at least one** of information about a transmission rate of the transmission link, information about a relationship of the transmission rate versus the sending rate and information about a status of a buffer of the transmission link **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)**.

     Regarding claim 3, the modified **Yano** reference discloses the method

according to claim 1 as described above. **Yano** does not explicitly disclose wherein the

obtained sending rate is separated into a fraction having the rate modulation and a

fraction having not the rate modulation and the obtained receiving rate is separated into

a fraction having the rate modulation and a fraction having not the rate modulation and

the fraction of the sending rate having not tile rate modulation is compared to the

fraction of the receiving rate having not the rate modulation to determine the relation

and the fraction of the receiving rate having the rate modulation is analyzed for the

determining of the appearance of the rate modulation. However **Jain** discloses

iteratively changing transmission rates of packet pairs and comparing a sending and

receiving rate fraction **(Jain: Section 3.2, page 298)** in order to determine transmission

capabilities of a system **(Jain: section 1. Introduction, page 295)**.

     It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation method of

Yano to include the use rate modulation and comparing a receiving and a sending rate

as taught by **Jain** in order to obtain information about transmission capabilities of a

system.

     Regarding claim 4, the modified **Yano** reference discloses the method

according to claim 1 as described above. **Yano** does not explicitly disclose, wherein the

obtained sending rate and the obtained receiving rate are subtracted and the subtracted

signal is analyzed to determine the relation and the appearance of the rate modulation.

However **Jain** discloses subtracting transmission rates **(Jain: Section 3.2, page 298)** in order to analyzer transmission capabilities **(Jain: section 1. Introduction, page 295)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention create the sending and receiving rate measurement and modulation method of **Yano** to include the use rate modulation and subtracting rates to determine as taught by **Jain** in order to obtain information about transmission capabilities of a system.

Regarding claim 5, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses wherein the data packets are sent from the sending entity to the receiving entity end-to-end on a first layer **(Yano: Col. 10, lines 26-34)** and the transmission capability of the transmission link is defined by a second layer being a non end-to-end layer below the first layer and at least one of the sending rate **(Yano: Col. 10, lines 26-34)** and the receiving rate are obtained based on information from the first layer or one or more end-to-end layers above the first layer **(Yano: Col. 10, lines 26-50)**.

Regarding claim 6, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses wherein the sending rate and the receiving rate are obtained **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)** and compared on the base of sequence numbers associated to the data packets and/or over time **(Yano: Col. 3, line 14-Col. 4, lines 26)**.

Regarding claim 7, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses, wherein at least one of the sending rate and the receiving rate are communicated to the analysis entity **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 1.)**

Regarding claim 8, the modified **Yano** reference discloses the method according to claim 1, as described above. **Yano** further discloses wherein the analysis entity obtains receiving rate related information on the base of sequence numbers by receiving receiver reports from the receiving entity **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 4-5, 10-11)**, each receiver report being received at a receiving time at the analysis entity which determines for each receiver report the respective receiving time **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)** and a respective included sequence number, each included sequence number indicating the most progressed of the sequence numbers available at the time of the generation of the respective receiver report at receiving entity **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)**, and the analysis entity calculates the obtained receiving rate on the base of the receiving rate related information **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)**.

Regarding claim 9, the modified **Yano** reference discloses the method according to claim 8 as described above. **Yano** further discloses wherein the receiver reports are generated and sent from the receiving entity according to a rule and the rate

modulation of the sending rate is adjusted to the rule **(Yano: Col. 3, line 14-Col. 4, lines 50; Fig. 1)**.

Regarding claim 10, the modified **Yano** reference discloses the method according to claim 8 as described above. **Yano** further discloses wherein the receiver reports comply with the Real-Time protocol Control part Protocol (RTCP) **(Yano: Col. 2, lines 35-37)**.

Regarding claim 11, the modified **Yano** reference discloses the method according to claim 1, wherein the data packets comply with the Real-Time Protocol (RTP) **(Yano: Col. 10, lines 26-50)**.

Regarding claim 12, the modified **Yano** reference discloses the method according to claim 1 as described above., wherein the sending rate is adjusted to at least one of pre-known information about one or more possible transmission capabilities of the transmission link and the obtained information about the transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

Regarding claim 13, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses wherein the transmission capability is adjusted based on the obtained information about the

transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

       Regarding claim 14, the modified **Yano** reference discloses the method according to claim 1 as described a above. **Yano** further discloses wherein the sending entity receives the data packets at one or more further sending rates from a further sending entity **(Yano: Col. 3, line 14-Col. 4, lines 50)**, and, based on the obtained information about the transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**, the sending entity is instructed to send the data packets to the transmission link at a new sending rate according to one of the one or more further sending rates **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

       Regarding claim 15, the modified **Yano** reference discloses the method according to claim 14 as described above. **Yano** further discloses, wherein the one or more further sending rates are not modulated with the rate modulation and the sending entity effects the rate modulation of the new sending rate **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

       Regarding claim 16, the modified **Yano** reference discloses the method according to claim 1 as described above. **Yano** further discloses, wherein the analysis entity and the sending entity are located on a streaming server **(Yano: Col. 3, line 14-Col. 4, lines 50; Fig. 1)**.

Regarding claim 18, the modified **Yano** reference discloses the method according to claim 1, wherein the analysis entity is located at the receiving entity **(Yano: Col. 3, line 14-Col. 4, lines 50; Fig. 1)**.

Regarding claim 20, Yano disclose an analysis entity (AE) for obtaining a transmission capability of a transmission link (TL) in a communication system where in data packets are sent from a sending entity (SE) at a sending rate being modulated with a rate modulation to the transmission link (TL) which transmits the data packets according to its transmission capability to a receiving entity (RE) receiving the data packets at a receiving rate **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)**, the analysis entity (AE) comprising

a receiving unit for receiving messages and information, a processing unit for processing messages and information, and a transmission unit for sending messages and information **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21; Fig. 1)**,

wherein the processing unit is adapted to obtain the sending rate ( ) and obtain the receiving rate **(Yano: Col. 3, lines 14-21 ; block labeled s202 "transit data at designated rate" Fig. 2; "The receiver report generator 1-23 calculates the reception rate that must be included in the receiver report," Yano: Col. 3, lines 37-44; "reception rate" Fig 5)**, and

to compare the obtained sending rate and the obtained receiving rate **(Yano: Col. 5 , lines 13-25; Fig. 6 "a new transmission rate is determined with reference to the current transmission rate" Yano: Col. 6, lines 45-46)** to determine an

appearance of the rate modulation of the sending rate in the obtained receiving rate

(Col. 6, lines 58-65; Fig. 6, Fig. 17), and

to obtain the information about the appearance of the rate modulation **(Yano:**

Col. 6, lines 58-65; Fig. 6, Fig. 17).

Yano does not explicitly disclose to determine a relation of the obtained sending

rate and the obtained receiving rate and the information about transmission capability

based on the relation.

However **Jain** discloses comparing a receiving rate and sending rate to

determine a relation **(Jain: page 297 upper left column)** and obtaining the information

about the transmission capability based on the determined relation **(Avail-Bw detection**

and measurement. Jain: page 297 upper left column). **Jain** discloses iteratively

changing transmission rates **(Jain: section 3.2, page 298)** in order to obtain

information about a transmission capabilities **(Jain: section 1. Introduction, page**

295).

It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation method of

Yano to include the use of comparing a receiving and a sending rate as taught by **Jain**

in order to obtain information about transmission capabilities of a system.

Regarding claim 24, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** further discloses wherein the obtained

information about the transmission capability is at least one of information about a

transmission rate of the transmission link, information about a relationship of the

transmission rate versus the sending rate, and information about a status of a buffer of

the transmission link **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)**.

      Regarding claim 25, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** does not explicitly disclose, wherein

the obtained sending rate is separated into a fraction having the rate modulation and a

fraction having not the rate modulation and the obtained receiving rate is separated into

a fraction having the rate modulation and a fraction having not the rate modulation and

the fraction of the sending rate having not the rate modulation is compared to the

fraction of the receiving rate having not the rate modulation to determine the relation

and the fraction of the receiving rate having the rate modulation is analyzed for the

determining of the appearance of the rate nodulation.

      However **Jain** discloses iteratively changing transmission rates of packet pairs

and comparing a sending and receiving rate fraction **(Jain: section 3.2, page 298)** in

order to determine transmission capabilities of a system **(Jain: section 1. Introduction,
page 295)**.

      It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation method of

Yano to include the use rate modulation and comparing a receiving and a sending rate

as taught by **Jain** in order to obtain information about transmission capabilities of a

system.

Regarding claim 26, the modified **Yano** reference discloses the method

according to claim 20 as described above. **Yano** does not explicitly disclose, wherein

the obtained sending rate and the obtained receiving rate are subtracted and the

subtracted signal is analyzed to determine the relation and the appearance of the rate

modulation. However **Jain** discloses subtracting transmission rates **(Jain: top right

column page 47)** in order to analyzer transmission capabilities **(Jain: section 1.1,

page 46)**.

It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation method of

Yano to include the use rate modulation and subtracting rates to determine as taught by

Jain in order to obtain information about transmission capabilities of a system.

Regarding claim 27, the modified **Yano** reference discloses the method

according to claim 20 as described above. **Yano** further discloses wherein the data

packets are sent from the sending entity to the receiving entity end-to-end on a first

layer and the transmission capability of the transmission link is defined by a second

layer being a non end-to-end layer below the first layer **(Yano: Col. 10, lines 26-34)**

and at least one of the sending rate and the receiving rate are obtained based on

information from the first layer or one or more end-to-end layers above the first layer

(Yano: Col. 10, lines 26-50).

Regarding claim 28, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** further discloses, wherein the sending

rate and the receiving rate are obtained **(Yano: Col. 3, lines 37-44; Col. 3, lines 14-21)**

and compared on the base of sequence numbers associated to the data packets and/or

over time **(Yano: Col. 3, line 14-Col. 4, lines 26)**.

Regarding claim 29, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** further discloses wherein at least one

of the sending rate and the receiving rate are communicated to the analysis entity

(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 1.).

Regarding claim 30, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** further discloses, wherein the

analysis entity further comprises means for obtaining receiving rate related information

on the base of sequence numbers by receiving receiver reports from the receiving entity

(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 4-5, 10-11),

 each receiver report being received at a receiving time at the analysis entity

which determines for each receiver report the respective receiving time and a respective

included sequence number **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)**,

each included sequence number indicating the most progressed of the sequence numbers available at the time of the generation of the respective receiver report at receiving entity **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)**, and

the analysis entity calculates the obtained receiving rate on the base of the receiving rate related information **(Yano: Col. 3, line 14-Col. 4, lines 26; Fig. 11)**.

Regarding claim 31, the modified **Yano** reference discloses analysis entity according to claim 20 as described above. **Yano** further discloses, wherein the receiver reports are generated and sent from the receiving entity according to a rule and the rate modulation of the sending rate is adjusted to the rule **(Yano: Col. 3, line 14-Col. 4, lines 50; Fig. 1)**.

Regarding claim 32, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** further discloses, wherein the receiver reports comply with the Real-Time protocol Control part Protocol (RTCP) **(Yano: Col. 2, lines 35-37)**.

Regarding claim 33, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** further discloses, wherein the data packets comply with the Real-Time Protocol (RTP) **(Yano: Col. 10, lines 26-50)**.

Regarding claim 34, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano**, further comprising means for adjusting to at least one of pre-known information about one or more possible transmission capabilities of the transmission link and the obtained information about the transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

Regarding claim 35, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano**, further comprising means for adjusting the transmission capability based on the obtained information about the transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

Regarding claim 36, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** further discloses, wherein the sending entity receives the data packets at one or more further sending rates from a further sending entity **(Yano: Col. 3, line 14-Col. 4, lines 50)**, and, based on the obtained information about the transmission capability **(Yano: Col. 3, line 14-Col. 4, lines 50)**, the sending entity is instructed to send the data packets to the transmission link at a new sending rate according to one of the one or more further sending rates **(Yano: Col. 3, line 14-Col. 4, lines 50)**.

Regarding claim 37, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** further discloses wherein the one or

more further sending rates are not modulated with the rate modulation and the sending

entity effects the rate modulation of the new sending rate **(Yano: Col. 3, line 14-Col. 4,**

lines 50).

Regarding claim 38, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano** further discloses, wherein the analysis

entity and the sending entity are located on a streaming server **(Yano: Col. 3, line 14-**

Col. 4, lines 50; Fig. 1).

Regarding claim 40, the modified **Yano** reference discloses the analysis entity

according to claim 20 as described above. **Yano**, wherein the analysis entity is located

at the receiving entity. **(Yano: Col. 3, line 14-Col. 4, lines 50; Fig. 1).**

9.   **Claims 17, 19, 39 and 41 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Yano et al. (US 6,701,372) in view of Jain et al. ("End-to-End

Available Bandwidth: Measurement Methodology, Dynamics, and Relation with

TCP Throughput") as applied to claims 1 and 14 above, and further in view of

Anandakumar et al. (US 2004/0252701).

Regarding claim 17, the modified **Yano** reference discloses the method

according to claim 14 as described above. **Yano** does not explicitly disclose wherein

the analysis entity and the sending entity are located on a proxy server and the further

sending entity is located on a streaming server. However **Anandakumar** discloses a

method of measuring and analyzing transmission rates and capabilities and discloses

the use of proxies **(Anandakumar: [0381], [0018], [0036])** in order to adapt

transmissions **(Anandakumar: [0018])**.

It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation and

comparing a receiving and a sending rate method of the modified **Yano** to include the

use of proxies as taught by **Anandakumar** in order in order to adapt transmissions

(Anandakumar: [0018]).

Regarding claim 19, the modified **Yano** reference discloses the method

according to claim 1 as described above. **Yano** does not explicitly disclose , wherein

the transmission link comprises a wireless link of a mobile communication network.

However **Anandakumar** discloses a method of measuring and analyzing

transmission rates and capabilities and discloses the use of mobile devices

(Anandakumar: [0324], [0018], [0036]) in order to adapt transmissions

(Anandakumar: [0018]).

It would have been obvious to one of ordinary skill in the art at the time of the

invention create the sending and receiving rate measurement and modulation and

comparing a receiving and a sending rate method of the modified **Yano** to include the

use of mobile device as taught by **Anandakumar** in order in order to adapt

transmissions **(Anandakumar: [0018])**.

Regarding claim 39, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** does not explicitly disclose, wherein the analysis entity and the sending entity are located on a proxy server and the further sending entity is located on a streaming server.

However **Anandakumar** discloses a method of measuring and analyzing transmission rates and capabilities and discloses the use of proxies **(Anandakumar: [0381], [0018], [0036])** in order to adapt transmissions **(Anandakumar: [0018])**.

It would have been obvious to one of ordinary skill in the art at the time of the invention create the sending and receiving rate measurement and modulation and comparing a receiving and a sending rate method of the modified **Yano** to include the use of proxies as taught by **Anandakumar** in order in order to adapt transmissions **(Anandakumar: [0018])**.

Regarding claim 41, the modified **Yano** reference discloses the analysis entity according to claim 20 as described above. **Yano** does not explicitly disclose, wherein the transmission link comprises a wireless link of a mobile communication network.

However **Anandakumar** discloses a method of measuring and analyzing transmission rates and capabilities and discloses the use of mobile devices **(Anandakumar: [0324], [0018], [0036])** in order to adapt transmissions **(Anandakumar: [0018])**.

It would have been obvious to one of ordinary skill in the art at the time of the invention create the sending and receiving rate measurement and modulation and comparing a receiving and a sending rate method of the modified **Yano** to include the use of mobile device as taught by **Anandakumar** in order in order to adapt transmissions **(Anandakumar: [0018])**.

Conclusion

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOEL BEHARRY whose telephone number is (571)270-5630. The examiner can normally be reached on M-T 10am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on 571-272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./
Examiner, Art Unit 2446

/Benjamin R Bruckart/
Primary Examiner, Art Unit 2446